

**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 36154**

I. INTRODUCTION

This Class I Air Quality Control Permit is for the operation of a Municipal Solid Waste Landfill. The Painted Desert Landfill (PDL) is owned by Pen Rob, Inc., and operated by Waste Management of Arizona, Inc. (WMA). This is a renewal of Permit # 1000776.

A. Company Information

Facility Name: Painted Desert Landfill

Facility Address: 9001 N. Porter Ave.
Joseph City, AZ 86032, Navajo County

Mailing Address: PO Box 190
Joseph City, AZ 86032, Navajo County

B. Background

This source is a Municipal Solid Waste Landfill.

C. Attainment Classification

Painted Desert Landfill is in an Attainment Area with respect to all the criteria pollutants.

II. FACILITY DESCRIPTION

A. Process Description

The PDL has been designed to exceed a design capacity of 2.5 million cubic meters or 2.5 million megagrams. PDL accepts non-hazardous industrial and solid wastes, construction and demolition debris, Arizona state regulated special wastes, white goods and other special wastes. Wastes that are conditionally accepted for disposal at the site include the following:

- White Goods - The PDL accepts large appliances that are void of Chlorinated fluorocarbons (CFC's) or will be evacuated prior to disposal;
- Construction and Demolition Debris - The PDL accepts construction and demolition debris (i.e., waste building materials, packaging and rubble from construction, remodeling, and repair and demolition operation of pavement, houses, buildings, and structures);

- Tires - The PDL segregates waste tires detected in the solid waste and temporarily stores the tires until they are shipped off-site.
- Asbestos - The acceptance and disposal of friable asbestos and non-friable asbestos containing materials at the PDL is performed according to 40 CFR §61, Subpart M, National Emission Standards for Asbestos §61.149 (Standard for asbestos mills), §61.150 (Standard for demolition, renovation, fabricating and manufacturing), §61.154 (Standard for active waste disposal sites), and §61.155 (Standard for asbestos conversion operations).
- Sewage Sludge - The PDL conditionally accepts sewage sludge. PDL requires the generator, or an agent for the generator, to provide documentation that adequately profiles the wastes. Waste will be disposed if it is a solid and the generator has provided documentation that the waste is not hazardous waste. PDL retains the option to use sludge as daily cover material provided it meets the required performance standards and receives ADEQ Solid Waste Unit approval;
- Petroleum-Contaminated Soil (PCS) - The PDL accepts PCS that is not regulated as a hazardous waste and contains no free liquids. The acceptance and disposal of PCS within lined waste management units at the PDL is handled according to Best Management Practice outlined in A.A.C. R18-13-1601 through 1614;
- Fly Ash - The PDL accepts incinerator or other process ash resulting from combustion processes, if the waste is not regulated as a hazardous waste and contains no free liquids.
- Special Wastes – The PDL accepts bulk and containerized liquid wastes for solidification prior to disposal. These wastes will be treated using soil or other solidification agents to render the wastes a solid. Documentation is provided by the generator of the waste to verify that the waste is not a hazardous waste.

The PDL is open six days a week.

B. Air Pollution Control Equipment:

Dust control measures such as the water truck are used several times per day, but only as needed to reduce dust emissions at the site. Additionally, the water tank is used several times per day. The water truck is filled and moves at slow speeds across the site, spraying a wide area with water to reduce particulate emissions.

III. COMPLIANCE HISTORY

Painted Desert Landfill has been in compliance with the permit conditions.

IV. EMISSIONS

The uncontrolled emissions for years 2005 and 2011 are given below.

Pollutant	Emissions (Yr 2005)	Emissions (Yr 2011)
	Ton/year	Ton/year
NMOC	12	19
PM	8.76	12.99
PM ₁₀	8.76	12.99
NO _x	21.62	21.62
SO ₂	1.42	1.42
VOC	24.85	30.07
CO	38.13	38.13
HAPs	19.82	23.92

The emissions are based on 2% annual disposal growth rate. The PDL is not expected to exceed the 50 Mg/yr threshold during the current permit period. The NMOC emissions at the end of the permit period will be approximately 19 Mg/yr.

The Permittee must recalculate the emissions when the annual disposal growth rate is greater than 2%. When the landfill approaches the 50 Mg/yr threshold, it will implement a landfill gas collection system.

V. APPLICABLE REGULATIONS

The applicable regulations were identified by the Department as part of the permitting process. If necessary, the source is required to list any additional regulations that may be applicable.

Table 2: Verification of Applicable Regulations

Unit	Date of Construction / Installation	Control Device	Rule	Verification
MSW Landfill	N/A	Required when NMOC > 50 Mg/yr	40 CFR §60, Subpart WWW, 40 CFR §63 Subpart AAAA	40 CFR §60 Subpart WWW regulates emissions of landfill gas from MSW landfills. National Emission Standard for Hazardous Air Pollutants (40 CFR §63 Subpart AAAA) requires a Startup, Shutdown and Malfunction (SSM) plan to be in place when the facility has a collection and control system in place.

Unit	Date of Construction / Installation	Control Device	Rule	Verification
Fugitive dust sources	N/A	Water and other reasonable precautions.	Article 6 of the A.A.C.	These standards are applicable to all fugitive dust sources.
Asbestos Handling	N/A	N/A	40 CFR §61.154 (Subpart M)	Standards for disposal of asbestos-containing waste
Mobile sources	N/A	Water Sprays/Water Truck for dust control	Article 8 of the A.A.C.	Opacity requirements for smoke and dust for mobile sources (construction equipment, etc.).
Stratospheric Ozone	N/A	N/A	40 CFR §82, Subpart F	Requirements for control of ozone-depleting substances
Liquid Waste Solidification Process	N/A	N/A	A.A.C. R18-2-730	Standards of Performance for Unclassified Sources

VI. PREVIOUS PERMITS

Table 3: Previous Permit Information

Date of Permit Issuance	Permit Number	Application Basis
October 11, 2000	1000776	Operating Permit

VII. PREVIOUS PERMIT CONDITIONS

This operating permit was issued to Painted Desert Landfill on October 11, 2000, for the operation of a Municipal Solid Waste Landfill.

Table 4: Permit # 1000776

Condition No.	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att. A.	x				General Provisions - Revised to represent most recent permitting language.
Att B.I.	x				Facility Wide Requirements - Revised to represent most recent permitting language.
Att B.II	x				NMOC Compounds

Condition No.	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att B.III	x				Collection and Control System Requirements
Att B.IV	x				Asbestos Requirements
Att B.V	x				Fugitive Dust Requirements - Revised to represent most recent permitting language.
Att B.VI	x				Stationary Rotating Machinery Requirements
Att B.VII	x				Mobile Sources Requirements - Revised to represent most recent permitting language.
Att B.VIII	x				Stratospheric Ozone Requirements
Att B.IX	x				Other Periodic Activities Requirements
Att C	x				Equipment List
Att D				x	Reporting Format

VIII. MONITORING AND RECORDKEEPING REQUIREMENTS

A. NMOC Emissions

Monitoring Requirements

The permit contains requirements for calculating and monitoring NMOC emissions on an annual basis, per 40 CFR §60, Subpart WWW. The Permittee is required to keep track of NMOC emissions in order to determine when and if the 50 Mg/yr threshold will be reached. When the threshold is reached, then a collection and control system is required, and additional monitoring requirements are triggered. It is anticipated that PDL will not trigger the additional requirements until the end of the permit term; however, they are included in the permit.

Compliance Assurance Monitoring (CAM) requirements do not apply to this facility, because the facility does not currently have any kind of pollution control device, and pre-control emissions are below the major source threshold.

B. Liquid Waste Solidification Process

1. Monitoring Requirements

Opacity

The permit specifies opacity limitations for the various point sources located within the facility. Visible emission surveys are to be performed by a certified Method 9 observer bi-weekly.

2. Record Keeping Requirements

Opacity

The Permittee is required to record the emission point being observed, location of the observer, date, time and the results of all Method 9 observation made bi-weekly, as well as the name of the observer who conducted the test. In the event of opacity going beyond the limit, the Permittee will keep a record of the corrective action taken to bring the opacity below the standard.

C. Fugitive Dust

1. Monitoring Requirements

Opacity

The permit requires bi-weekly EPA Reference Method 9 of fugitive emissions by a certified Method 9 observer.

2. Recordkeeping Requirements

The Permittee is required to record the emission point being observed, date, time and the results of all observations made, as well as the name of the observer who conducted the test. In the event of opacity going beyond the limit, the Permittee will keep a record of the corrective action taken to bring the opacity below the standard.

D. Asbestos

The Permittee is required to maintain shipment records of all asbestos containing materials that enter the landfill.

E. Ozone Depleting Materials

The Permittee is required to comply with the requirements of 40 CFR 82.

IX. INSIGNIFICANT ACTIVITIES

The applicant has requested the following activities to be deemed as “insignificant”. According to A.A.C. R18-2-101.57, for an activity to be deemed “insignificant”, there should be no applicable requirement for the activity. This was the basis used to determine if the activities in the following list qualify as an “insignificant” activity under Arizona law.

Table 5: Insignificant Activities

Activity	Insignificant Yes/No	Reason and Applicable Regulation
2000 gallon diesel storage tank	Yes	Diesel storage – A.A.C. R18-2-101.57.c
IC engines driven air compressors, and pressure washer	No	A.A.C. R-18-2-719 applicable.
Landscaping, building, maintenance or janitorial activities	Yes	A.A.C. R18-2-101.57.a
Hand-held or manually operated tools or equipment for cutting, buffing, polishing, carving, drilling, machining, sanding, sawing and grinding.	Yes	A.A.C. R18-2-101.57.f
Brazing or welding equipment	Yes	A.A.C. R18-2-101.57.j
Gasoline storage tanks with capacity of 10,000 gallons or less	Yes	A.A.C. R18-2-101.57.b

X. NONROAD ENGINES

The Department has determined that the following engines meet the requirements of nonroad engines as specified in 40 CFR 89.2 and 40 CFR 90.3. The engines listed below are portable or transportable and are positioned on a service truck or pulled on wheels. Also, the engines will not remain at one location for more than 12 consecutive months.

EQUIPMENT TYPE	MAX. CAPACITY	MAKE	EQUIPMENT ID NUMBER
Gasoline Water Pump	< 10 hp	Brigs & Straton	WP-1
Gasoline Pressure Washer	16 hp	Alkota	PW-1
Gasoline Air Compressor	15 bhp	Kohler	AC-1
Diesel Air Compressor	49 hp	IR	AC-2
Diesel Pressure Washer	16 hp	Alkota	PW-1

XI. LIST OF ABBREVIATIONS

A.A.C.....	Arizona Administrative Code
CAM.....	Compliance Assurance Monitoring
CFR.....	Code of Federal Regulations
CO	Carbon Monoxide
EPA.....	Environmental Protection Agency
HAPs	Hazardous Air Pollutants
HP.....	Horsepower
NO _x	Nitrogen Oxides
NSPS.....	New Source Performance Standard
PM.....	Particulate Matter
PM ₁₀	Particulate Matter Less than 10 Microns
PTE.....	Potential to Emit
SO ₂	Sulfur Dioxide
VOC.....	Volatile Organic Compounds
Yr.....	Year